BAW27

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Small Signal Switching Diode



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MECHANICAL DATA

Case: DO-35 (DO-204AH) Weight: approx. 125 mg Cathode band color: black Packaging codes / options: TR/10K per 13" reel (52 mm tape), 50K/box TAP/10K per ammopack (52 mm tape), 50K/box FEATURES

- Silicon epitaxial planar diode
- Low forward voltage drop
- High forward current capability
- AEC-Q101 qualified
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

APPLICATIONS

• High speed switch and general purpose use in computer and industrial applications

PARTS TABLE					
PART	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS	
BAW27	BAW27-TR or BAW27-TAP	BAW27	Single	Tape and reel / ammopack	

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Repetitive peak reverse voltage		V _{RRM}	75	V	
Reverse voltage		V _R	60	V	
Peak forward surge current	t _p = 1 μs	I _{FSM}	4	А	
Forward continuous current		١ _F	600	mA	
Average forward current	V _R = 0	I _{F(AV)}	300	mA	
Power dissipation	l = 4 mm, T _L = 45 °C	P _{tot}	440	mW	
Fower dissipation	$I = 4 \text{ mm}, T_L \leq 25 \text{ °C}$	P _{tot}	500	mW	

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Thermal resistance junction to ambient air	$I = 4 \text{ mm}, T_L = \text{constant}$	R _{thJA}	350	K/W	
Junction temperature		Tj	175	°C	
Storage temperature range		T _{stg}	-65 to +175	°C	

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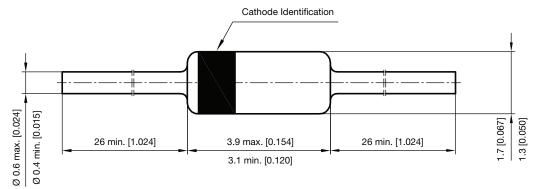
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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
	I _F = 10 mA	V _F		0.670	0.750	V
Forward voltage	I _F = 50 mA	VF		800	850	mV
Forward voltage	I _F = 200 mA	V _F		950	1000	mV
	I _F = 400 mA	V _F		1120	1250	mV
Reverse current	V _R = 60 V	I _R			100	nA
neverse current	$V_R = 60 \text{ V}, \text{ T}_j = 100 ^\circ\text{C}$	I _R			50	μA
Breakdown voltage	$I_{R} = 5 \ \mu A, \ t_{p}/T = 0.01, \ t_{p} = 0.3 \ ms$	V _(BR)	75			v
Diode capacitance	$\label{eq:VR} \begin{array}{l} V_{R} = 0 \ V, \ f = 1 \ MHz, \\ V_{HF} = 50 \ mV \end{array}$	CD			4	pF
Reverse recovery time	$I_{F} = I_{R} = 10 \text{ mA},$ $i_{R} = 0.1 \text{ x } I_{R}$	t _{rr}			6	ns

PACKAGE DIMENSIONS in millimeters (inches): DO-35 (DO-204AH)



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